

SURFACE MOUNT ULTRAFAST RECOVERY RECTIFIER

FEATURES

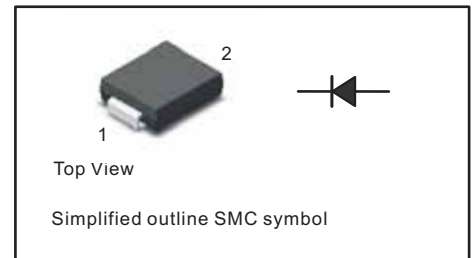
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- High efficiency
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- A pprox. Weight: 0.22g / 0.0077oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25 °C ambient temperature unless otherwise specified.
- Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	MURS420	MURS440	MURS460	MURS4100	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	250	450	650	1050	V
Maximum RMS voltage	V _{RMS}	175	315	455	735	V
Maximum DC Blocking Voltage	V _{DC}	250	450	650	1050	V
Maximum Average Forward Rectified Current	I _{F(AV)}	4				A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I _{FSM}	125				A
Maximum Instantaneous Forward Voltage at 4 A	V _F	1.0	1.3	1.68		V
Maximum DC Reverse Current T _a = 25 °C at Rated DC Blocking Voltage T _a =125 °C	I _R	1 100				μA
Maximum Reverse Recovery Time ⁽¹⁾	t _{rr}	50			75	ns
Typical Junction Capacitance at V _R =4V, f=1MHz	C _j	45				pF
Typical Thermal Resistance ⁽²⁾	R _{θJA} R _{θJC}	40 16				°C/W
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150				°C

Notes:

(1) Measured with $I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{rr} = 0.25\text{ A}$

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

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RATINGS AND CHARACTERISTIC CURVES MURS420 -MURS4100

Fig.1 Maximum Average Forward Current Rating

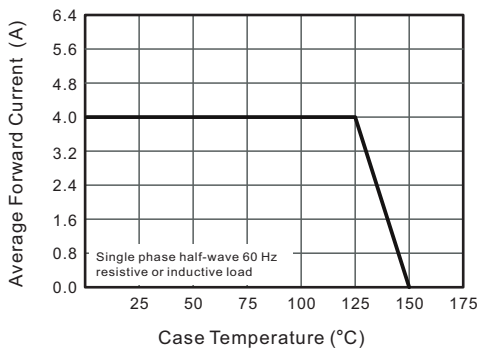


Fig.2 Typical Reverse Characteristics

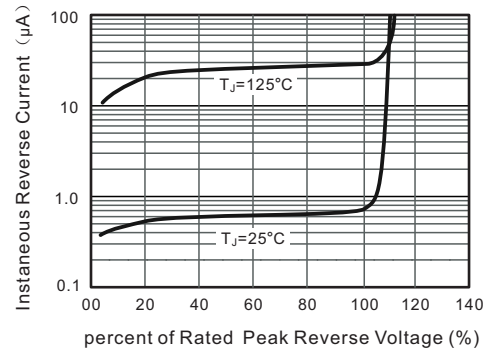


Fig.4 Typical Forward Characteristics

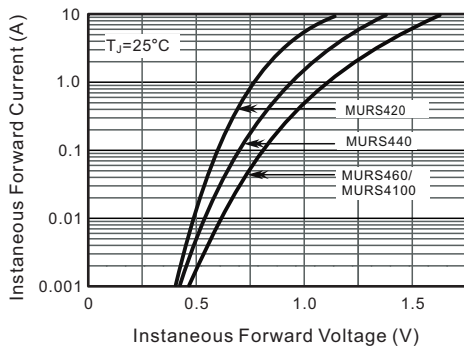
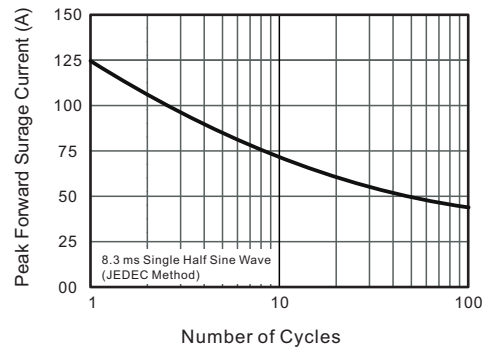


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

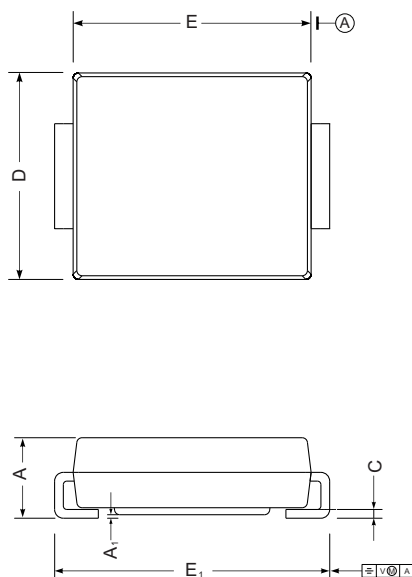


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PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

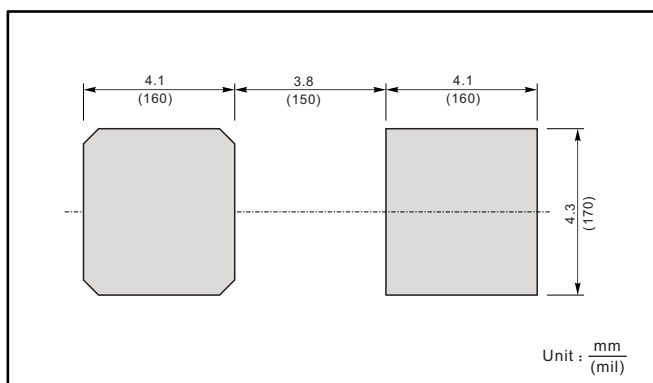
SMC



SMC mechanical data

UNIT		A	E	D	E ₁	A ₁	C	L	b
mm	max	2.62	7.1	6.2	8.1	0.21	0.31	1.7	3.25
	min	2.00	6.6	5.6	7.8	0.05	0.15	1.0	2.75
mil	max	103	280	244	319	8.3	12	59	128
	min	79	260	220	307	2.0	5.9	32	108

The recommended mounting pad size



Marking

Type number	Marking code
MURS420	S420
MURS440	S440
MURS460	S460
MURS4100	S4100



Disclaimer

All product, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise.